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## ABSTRACT

This paper deals with growing ethical dilemmas in sport as technology advances. Three aspects of sport are discussed: (1) the perpetual conflict between process (training) and product (the actual contest); (2) technophobia, the fear of the new world of technology; and (3) "technosport" or technological training. It is necessary to understand that sport technology requires an ethical foundation, rather than a philosophy of win at any price. Because of such practices as genetic engineering and drug use among athletes to improve performance, decisions must be made on ethical standards and basic rules. Rules set ethical judgments and tell athletes how much is too much and what cannot be done to win. It is not possible to wait until problems become glaring in order to deal with the implications of technology for sport. Sport success should not be simply a matter of who can spend the greatest amount of money and time to train, nor of who is willing to take the most chances with their future health by abusing their body with overtraining or drugs. The public expects schools to teach right conduct and should expect the same of the sports system. (LL)

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## SPORT AND TECHNOLOGY: ETHICS ON THE CUTTING EDGE

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*This paper examines three aspects of sport: (1) the perpetual conflict between process and product, (2) technophobia, and (3) the ethical implications of TechnoSport. It proposes that we should set ethical limits to striving.*

No field is without problems, but the problems we encounter in sport can be particularly difficult. In many cases we find ourselves caught in ethical dilemmas, unsure as to what is the best or most proper thing to do (Freeman, in press). As Hubert Doucet (1990) notes, "Sports and ethics have always been in a dialogue." He adds that we must understand sport in the context of a technological society, for the potential for abuse is much greater. Gunter Gebauer (1990) warns that we often make the mistake of interpreting ethics by ambiguous and constantly changing standards, usually in terms of the past (such as chivalry).

### Growing Ethical Dilemmas in Sport

Ellis Cashmore (1990) writes that "modern sport has taken on an almost Manichaeian character in which good coexists with evil; the evil is represented increasingly by the spread of the use of drugs amongst athletes eager to improve their performance" (p. 107). We see a growing concern with the problem of sport drug use and how to deal with it (Fost, 1990). This concern grows as sport training changes. As Cashmore says,

Injuries are better tended, pains are anaesthetized, and recoveries are accelerated. Nutrition has aided both training and performance. Psychology has helped strengthen commitment and develop beneficial attitudes. Biomechanics has identified more efficient methods of locomotion. Pharmacology's specific contribution is more ambiguous (p. 118).

We have arrived at a time when we can do things that we never imagined in developing athletes. As a research biologist said, "If we can do it, it has already been done" (Bouchard, 1990). We read reports of Olympic Champions from East Germany who used steroids provided by their national program beginning in their teen years (*Sports Illustrated*, 1990). We see *Track and Field News* (1990) listing 11-person Top 10s for the year, because some failed drug tests on World Record Holders are unresolved. We hear rumors of the use of new, potentially even more dangerous substances such as HGH (human growth hormone) being used by young athletes (Harbison, 1990). We find youths increasingly using steroids simply to improve their physical appearance (Gup, 1991). As coaches we are facing a radically-

changing competitive world. To make the situation more difficult, many new coaches are untrained in track and also relatively unaware of the magnitude of the ethical dilemmas that they will encounter. As technology advances, these ethical challenges will become even more intense (Freeman, 1990b).

I want to look at three aspects of today's sport:

1. The perpetual conflict between process and product
2. Technophobia in sport
3. The ethical implications of TechnoSport

The first two aspects are problems that affect sport in the past, present, and future. The third aspect is the real focus of my concerns for the future of sport. I speak from the point of view of a somewhat traditional educator, but I also speak as a former coach of athletes who have competed in the United States Olympic Trials.

### **ASPECT 1: Citius, Altius, Fortius: The Conflict between Process and Product**

Sport has two aspects, one of which is generally neglected by philosophers. This is unfortunate, because those two aspects have conflicting standards, leaving them in perpetual conflict. Most philosophic discourse on sport ignores the training scene, and focuses on the contest alone. This ignores the time-consuming process, concentrating instead on the product. For example, in a single-periodized program of sport training, the year or macrocycle is divided into six phases (Freeman, 1989). Only three of those phases include any competition at all, and the total competition phases in a year typically last about three months. This leaves 75% of the athlete's year (and 99% of the active time) largely ignored by sport philosophers. Athletes do not develop their personal philosophies of sport *after* they go to an Olympic Games. Competition is the test: It simply demonstrates what they have learned. However, the training phases *develop* that learning.

Most texts on the philosophic study of sport over the last two decades focus on competition rather than training. William Morgan and Klaus Meier's 1988 text has many readings on "Sport and Ethics," but all of them study competition. Warren Fraleigh's 1984 book on applied ethics for the athlete is strictly in the competitive setting. Peter McIntosh's 1979 work on fair play also focuses on competition. Indeed, the typical book on sport philosophy gives only passing mention to the process of training. In 18 pages suggesting proper conduct for athletic programs, Richard Lapchick and John Slaughter (1989) suggest only one rule relating to training itself: limit the number of practice hours. It is as if the training process has no ethical bounds; indeed, as if it is of no philosophic concern.

Our training rules are based on the amateur code that came to us from the last century. We do not know the motives behind those rules. Were they written to provide a level playing field, or a segregated one? Were they written to give everyone an equal chance, or to limit one group's risk of losing? Bruce Kidd (1988) argues that athletes are not always the force behind rising professionalism. In fact, the forces of nationalism and commercialism pressed for higher levels of performance; the "professional amateur" has simply been the recipient of this twinned boon and curse.

Scott Kretchmar (1984) calls for more work on the ethics of sport, writing that

'moralizing' on paper can have considerable value and, in truth, some good work in the ethics of sport has been produced. But such progress has been the exception, rather than the rule. In very fundamental ways, this literature remains critically undeveloped (p. 21).

One exception to this shortage of work is Carolyn Thomas's 1984 discussion of intent and training. Just as Kretchmar noted the paucity of work on sport ethics, Thomas suggests that

the two most overlooked aspects of sport are the intent and preparation stages... little attention has been paid to the training, or preparation, stage of sport as it involves player choices and the relationships of preparation, or training, to intent and eventually to contest outcomes (p. 84).

Steve Lemay (1979) argues that because "training is a chosen activity" the athlete "may choose how well he is to play" (p. 59). Thomas (1984) contends that the argument that undertraining has ethical undertones (that of a failure to live up to the intent to contest as a worthy opponent) may be equally true for overtraining, depending on the athlete's intent (p. 87). In short, she argues that "to fail to train in accordance with intent becomes an act of 'bad faith,' a breach of sportsmanship" (p. 90). We might say that setting limits to the act of striving is a form of "throwing" the contest, or failing to try to perform to the best of our capabilities. Nonetheless, I suggest that we need to do so.

In examining training, we are looking at the **process** of sport, rather than the **product**. That process is the means to the desired end of victory. However, our athlete faces a dilemma. In modern sport, we encourage athletes to shoot for the stars, to set no limits to their striving. Catch-22 is that the rules set limits to how those athletes can train, and those limits affect the level of potential achievement. We tell athletes that we want unlimited achievement from a limited effort to achieve.

Even a Bart Simpson can tell you that this makes no logical sense. We encounter a bottomless pit of conflict in defining what constitutes an unfair effort to achieve sporting success. For example, what substances are "drugs", and what degree of "drugging" or manufacturing of performance is "unfair" or "illegal"? We accept steroids as drugs, yet some of them are naturally-occurring substances in the athletes. Should we ban vitamin and mineral supplements? Certain common foods? Do we go on an individual basis? My body has major disagreements with rye grass, but I will be "cheating" if I take the medication I need simply to sleep during the season, much less to perform aerobic activities.

## **ASPECT 2: Sport (Like Society) Suffers from Technophobia**

Our world is becoming a technological marvel that we scarcely dreamed of a decade ago. We are now firmly in a computer-oriented age of technology, yet many people are fearful of this new world. They see the new technologies as difficult to use and threatening to human peace of mind, a view that may be in part a result of our fictional literature about computers. Historically, our fiction has presented technology as dangerous to humans.



Our earliest example of technophobia is that old tale of the dangers of new technology: Mary Shelley's 1818 book *Frankenstein*, a description of the attempt to "play God" with human life. From Karel Capek's early play *R.U.R.*, which gave us the term "robot," to HAL 9000 in the movie *2001*, from Tik Tok and the Shockwave Rider to the "cybernetic samurai," our fictional computers and the robots they often inhabit appear as threatening faces of the future. Though we also have been given other, non-threatening (and even humorous) forms, as in the movie *Star Wars*, the talking appliances and depressed robot of Douglas Adams, and the helpful and sometimes protohuman characters of Robert Heinlein, many people still view the technological future as a dark, threatening one. Today, we have progressed no further: now we have *The Terminator* (1984) and *Predator* (1989). We see a long line of threatening technologies, from semi-humans to computers to robots, cyborgs, and androids.

Sport is not spared this worried view of the threat of rampant technology. Science fiction gives us a largely dehumanized view of future sport. Peter Lovesey's (1978) pseudonymously-written *Goldengirl* transported sport training into the near future, giving us a very unsettling view of training for elite athletics. Unlike most novelists, Lovesey is well educated in sport training techniques. His training was not so radical as we prefer to believe.

Personally, I suspect that the Cult of the Amateur is our expression of longing for a dimly-lit, vaguely remembered past, before Technology and the Modern Age reared its ugly head and faced us with a yellow-eyed Ben Johnson, and with Goldengirl-- the reality and the fiction, two faces of a single fear.

The Cult is a pleasant myth, like Ronald Reagan's memory of the Depression-- but we must deal with reality. I mention Reagan's memory, because he is a well-known example of that most human of characteristics-- the tendency to remember the past as better (and simpler) than it was. The reality is Man the Striver (I use the word "man" in its traditional English language neuter form as representative of all people).

My suspicion is that technophobia is another form of our fear of the unknown and the different, which Alvin Toffler (1990) describes as the new xenophobia, the hatred of outsiders (p. 382). Today we see this common social trait in war and sport. We never oppose people with different cultures and beliefs. Instead, we oppose people of a lower order, people of no beliefs, who thus deserve neither respect nor consideration, though they claim (as we do) that God is on their side. We assume that as "his eye is on the falling sparrow," it must surely be on the falling field goal kick, and with an equal concern as to outcome.

### ASPECT 3: The Ethical Implications of TechnoSport

We have arrived at an age of technological training. Our capabilities are far greater than we realize. As Claude Bouchard (1990) noted, we need not worry about genetic engineering of athletes in the future. That capability is here today, so we must begin to decide on our ethical standards and our basic rules today.

Michael Crichton (1990) writes that "The fact that biotechnology can be applied to the industries traditionally subject to the vagaries of fashion, such as cosmetics and leisure activities, heightens concern about the whimsical use of this powerful new technology" (p. viii). In *Jurassic Park*, a character observes that "The history of evolution is that life escapes all barriers. Life breaks free. Life expands to new territories. Painfully, perhaps even dangerously. But life finds a way" (p. 160). Before you think that I am going too far in referring to a

novel about cloning dinosaurs, let me read you a February headline from the New York Times News Service: "Museum considers cloning Lincoln's tissues for study" (Leary, 1990).

We cannot wait until problems become glaring to deal with the implications that technology have for sport (Pickering, 1990). As Angela Schneider and R. B. Butcher (1990) suggest, we delayed in deciding what was acceptable in doping, and the result was inconsistent rules that do not approach the underlying basis of providing equality of opportunity and of competition.

Is the essence of sport a denial of reality, an escape from the real world? If it is, will the onset of virtual reality (Emery, 1990) and a more "connected" [plug-in] leisure/entertainment options lead us away from the traditional physical sport toward more passive forms of participation?

Sport may be the last stronghold of individual achievement, of unquestioned success or failure-- and people will not respect impediments put in their path. As we ponder the implications of that statement, I want to propose the Rule of TechnoSport (actually, a rule and two corollaries):

**The Rule of TechnoSport:** If it *can* be done, it *will* be done.

Corollary 1: If it *can* be done, it *is being done now*.

Corollary 2: If it *can* be done, it is because someone *already did it*.

To this, I might add what I think of as

**Bouchard's Dictum:** Today, rather than tomorrow.

Claude Bouchard (1990) warned that we should not worry about genetic engineering being applied to sport in the future, because such approaches are already taking place. In short: **It is too late to worry about the future, because the future is now.** Our struggle against doping in sport (to use a common example) is like Nancy Reagan's nagging catchphrase "Just say no": It is meaningless, because it only sells the already-sold.

So what do these three aspects suggest about ethics on the cutting edge? To me, it means that we need to set ethical limits to striving, but that such a goal may be unattainable due to the vagaries of human nature. I need to explain briefly why I believe that we need to set ethical limits to striving, and why those ethical limits are important to sport.

### The Need for Ethical Limits to Striving

The crux of my concern is a growing belief that we **should** set ethical limits to striving. We must agree that sport success should not be simply a matter of who can spend the greatest amount of money and time to train, nor of who is willing to take the most chances with their future health by abusing their body with training, or with drugs, or with questionable psychological approaches.

Why should we set limits? After all, our Olympic Goal is that noble standard of *Citius, Altius, Fortius*. How can we accept even the concept of a limit to our striving? I want to make just two small points.

**First**, the traditional amateur standard that developed in Coubertin's time, regardless of any sociological or political motive, focused on sport as a worthy *pastime*, *not* as an avocation or an obsession. I do not believe that social snobbery was the only reason behind the opposition to making a vast investment in time, effort, and money in the hope of sporting

success. I believe that the root motive was the ideal of the well-rounded person, enjoying and benefitting from numerous activities. Today's ill-educated, unaware sports figures who know only their own tiny competitive world would have been viewed back then with far less appreciation than they are today.

**Second**, we must ensure that success in 21st century sport is *legitimately* worth striving for (Kirsch, 1990). *Citius, Altius, Fortius* should mean something more than simply "I won because my whole life has been nothing except training and competition." A critical question is: *What are the moral and ethical training bounds of our training system?* When we formulate the rules, we are making ethical judgments. We are dealing with matters of justice and propriety in an imperfect world. Our rules set the limits; they tell us how much is too much. The Olympic Goal of *Citius, Altius, Fortius* sets no limits, so we must decide at ultimate question in sports and in life: "What won't we do to win?" Should there be limits? What is proper and what is improper in our striving for the distant peak of Olympic success (Freeman, 1990a)?

### Why Are Ethical Limits Important?

We need ethical limits to what we will do because our goal is *Everyman as a potential Olympian*. Expert systems software may someday provide Olympic-level coaching for the common man and woman. This is a critical point to remember, because it would result in a vast number of serious participants in the sport system.

When far more people are in a system that system's obligation to be ethically bound becomes enormous, for the core value systems of the participants are affected by both example and practice. Just as we expect our schools to teach right conduct, so should we expect the same of our sport system. Otherwise, it acts like a loaded gun in our midst, threatening the very fabric of what we claim to believe.

As we move toward that day when technology will play a major part in directing the training program, thereby saying what is right and wrong to do as a part of training, we must ensure that ethical standards are firmly a part of the foundation of the system. Such technology without an ethical foundation is societal chaos, for without it we will continue to teach today's lesson: "It doesn't matter what you do, as long as you win" (Freeman, 1991).

Can we afford that in a rapidly shrinking world of diverse, contentious cultures?

### References

- Bouchard, Claude. (1990, May). *Bioethics, social ethics and sport ethics: Le point de vue d'un biologiste*. Paper presented at the Sport...The Third Millenium conference, Quebec City, Canada.
- Cashmore, Ellis. (1990). *Making Sense of Sport*. London: Routledge.
- Crichton, Michael. (1990). *Jurassic Park*. New York: Alfred A. Knopf.
- A dirty system. (1990, December 17). *Sports Illustrated*, p. 27.



- Doucet, Hubert. (1990, May). *Bioethics, social ethics and sport ethics: Jalons pour une analyse éthique*. Paper presented at the Sport...The Third Millenium conference, Quebec City, Canada.
- Emery, Glenn. (1990, December 24). Close encounters of a virtual kind. *Insight*, pp. 30-31.
- Fost, Norman. (1990, May 24). *Ethical-medical and social foundations and issues of anti-doping strategies in sport*. Presented at Sport...The Third Millenium Conference, Quebec City, Canada.
- Fraleigh, Warren P. (1984). *Right actions in sport: Ethics for contestants*. Champaign, IL: Human Kinetics.
- Freeman, William H. (1989). *Peak when it counts: Periodization for American track and field*. Los Altos, CA: Tafnews.
- Freeman, William H. (1990a, May). *The ethical implications of expert systems in sport training: The need for ethical limits to striving*. Paper presented at the Sport...The Third Millenium conference, Quebec City, Canada.
- Freeman, William H. (1990b, July). *Expert systems in coaching: Every athlete has an Olympic coach*. Paper presented at the 7th Conference of the International Society for Comparative Physical Education and Sport, Bisham Abbey Sports Centre, England.
- Freeman, William H. (1991, Spring). The ethical implications of coaching: Are there ethical limits to striving? *Track and Field Quarterly Review*, 91.
- Freeman, William H. (in press). *Physical education and sport in a changing society* (4th ed.). New York: Macmillan.
- Gebauer, Gunter. (1990, May). *Bioethics, social ethics and sport ethics: The point of view of a philosopher*. Paper presented at the Sport...The Third Millenium conference, Quebec City, Canada.
- Gup, Ted. (1991, January 21). Running again-- on empty. *Time*, p. 72.
- Harbison, Georgia. (1990, January 8). A chance to be taller. *Time*, p. 70.
- How did they get here? (1990, January). *Track and Field News*, p. 72.
- Kidd, Bruce. (1988). The elite athlete. In Jean Harvey and Hart Cantelon (Eds.), *Not Just a Game: Essays in Canadian sport sociology* (pp. 287-307). Ottawa: University of Ottawa Press.
- Kirsch, August. (1990). Doping-- Moral responsibility and the future of Olympic sport. In P. Belotti, G. Benzi & A. Ljungqvist (Eds.), *Proceedings of the IIInd I.A.F. World Symposium on Doping in Sport* (pp. 159-162). Monte Carlo: International Athletic Federation.
- Kretchmar, R. Scott. (1984). Ethics and sport: An overview. *Journal of the Philosophy of Sport*, 10.
- Lapchick, Richard E., & Slaughter, John Brooks. (1989). *The rules of the game: Ethics in college sport*. New York: American Council on Education and Macmillan.
- LeMay, Steve. (1979). Sport and training: Some preliminary philosophic considerations. In William J. Morgan (Ed.), *Sport and the humanities*. Knoxville: University of Tennessee Press.
- Lear, Peter (pseud. Peter Lovesey). (1978). *Goldengirl*. New York: Doubleday.
- Leary, Warren E. (1990, February 10). Museum considers cloning Lincoln's tissues for study. Raleigh (NC) *News and Observer*, p. 2A.



- McIntosh, Peter. (1979). *Fair play: Ethics in sport and education*. London: Heinemann.
- Morgan, William J., & Meier, Klaus V. (Eds.). (1988). *Philosophic inquiry in sport*. Champaign, IL: Human Kinetics.
- Pickering, Ron. (1990). A moral dilemma for sport and for science. In P. Belotti, G. Benzi & A. Ljungqvist (Eds.), *Proceedings of the 11nd I.A.F. World Symposium on Doping in Sport* (pp. 155-158). Monte Carlo: International Athletic Federation.
- Schneider, Angela J., & Butcher, R. B. (1990, May). *The mesalliance of the Olympic ideal and doping: Why they married and why they should divorce*. Paper presented at the Sport...The Third Millenium conference, Quebec City, Canada.
- Shelley, Mary. (1818). *Frankenstein*. London; Clarke, Arthur C. (1968). 2001. New York: New American Library; Sladek, John. (1983). *Tik Tok*. London: Victor Gollancz; Brunner, John. (1975). *The shockwave rider*. New York: Del Rey; Milan, Victor. (1985). *The cybernetic samurai*. New York: Arbor House; Adams, Douglas. (1979). *The hitchhiker's guide to the Galaxy*. London: Arthur Barker; Klass, Morton. (1983, November). The artificial alien: Transformations of the robot in science fiction. *Annals of the American Academy of Political and Social Science*, 470, 171-179.
- Thomas, Carolyn E. (1984). Thoughts on the moral relationship of intent and training in sport. *Journal of the Philosophy of Sport*, 10.
- Toffler, Alvin. (1990). *Powershift*. New York: Bantam.